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EXAMINER	
SHAPIRO, LEONID	
ART UNIT	**PAPER NUMBER**
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,152	ING ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15-21,26-37.39-44* is/are rejected.

7)☒ Claim(s) *14,22-25,38 and 45* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claim 4: "localizing further comprises comparing, using a second comparison technique, a second sensed signal in the at least one sensed signals with one or more predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said second sensed signal, wherein said first comparison technique and said second comparison technique are in different way from one another" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The limitations of claim 4: "localizing further comprises comparing, using a second comparison technique, a second sensed signal in the at least one sensed signals with one or more predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said second sensed signal, wherein said first comparison technique and said second comparison technique are in different way from one another" is not described in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations of claim 4: "localizing further comprises comparing, using a second comparison technique, a second sensed signal in the at least one sensed signals with one or more predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said second sensed signal, wherein said first comparison technique and said second comparison technique are in different way from one another" is not described in the specification or shown in Figures.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Neill et al. (US Patent No. 6,724,373 B1).

As to claim 34, O'Neill et al. teaches a method of identifying a location of an impact on a surface of an object, wherein said surface is delineated into a plurality of

active zones (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67), the method comprising:

measuring a sensed signal caused by said impact (See 12, item 304);

comparing said sensed signal with a library of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4), each predetermined signal in said library of predetermined signals corresponding to an active zone in said plurality of active zones (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67); wherein

when a correspondence between said sensed signal and a respective predetermined signal in said plurality of sensed signals is sufficiently similar, said location of said impact is deemed to be in the active zone corresponding to said respective predetermined signal (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

As to claim 35, O'Neill et al. teaches intercorrelating said sensed signal with a predetermined signal in said library of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2,6-13,15,17-18,20,26,28-33,39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al. in view of Colliot (FP 2 595 744).

As to claim 1, O'Neill et al. teaches a method for locating a positionof an impact on a surface of an object (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67), the method comprising:

measuring at least one sensed signal caused by said impact (See 12, item 304);

localizing said position of said impact on said interface by processing of said at least sensed signal, the processing characterized by a comparison of a sensed signal in the at least one sensed signal with at least one predetermined signal in a plurality of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4) , wherein

each respective predetermined signal in said in said plurality of predetermined signals corresponding to an active zone in said plurality of active zones on said surface (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67); and

each respective predetermined signal in said plurality of predetermined signals represents a signal that is sensed when a reference impact is generated on the active zone in said plurality of active zones that corresponds to the respective predetermined signal, and wherein,

the position of the impact is associated with an active zone in said plurality of active zones by said instructions for localizing when the sensed signal is sufficiently similar to said predetermined signal corresponding to the active zone (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

O'Neill et al. does not disclose acoustical interface, acoustic waves and at least one acoustical sensor.

Colliot teaches acoustical interface, acoustic waves and at least one acoustical sensor (See Fig. 1, item 2, Title).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Colliot into O'Neill et al. system in order to compare the key signals (See Title in Colliot reference).

As to claim 2, O'Neill et al. teaches localizing comprises comparing the sensed signal with said plurality of predetermined signals, each respective predetermined signal in said plurality of predetermined signals corresponding to a signal sensed when an impact is generated on a corresponding one of several active zones in a plurality of active zones (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

As to claims 6-7, Colliot teaches one or single acoustical sensor (See Fig. 1, item 2).

As to claims 8-13,15,32 O'Neill et al. teaches experimentally determining a predetermined signal in said plurality of

predetermined signals, said experimentally determining comprising:

(i) generating at least one impact in an active zone on the surface of said object, said active zone corresponding to the predetermined signal; and

(ii) measuring a signal caused by the at least one impact using one or more acoustic sensors in said at least one acoustic sensor (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

As to claims 17-18,20 O'Neill et al. teaches the object forming an acoustic interface comprises a plurality of active zones and wherein said localizing comprises determining a plurality of resemblance values, each resemblance value representative a resemblance between the sensed signal and a the predetermined signals signal in said plurality of predetermined signals,

associating the position of the impact (I) a plurality of adjacent active zones as a function of said plurality of resemblance values,

identifying the position of the impact (I) on the surface based on a function of the resemblance values attributed to the plurality of adjacent active zones associated with said impact (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

As to claim 26, O'Neill et al. teaches a device for locating a position of an impact on a surface of an object (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67), the method comprising:

means for measuring at least one sensed signal caused by said impact (See 12, item 304);

means for localizing said position of said impact on said interface by processing of said at least sensed signals, characterized I that said means for localizing comprises:

recognition means suitable for comparing the sensed signal in the at least one sensed signal with at least one predetermined, each respective predetermined signal in said at least one predetermined signal corresponding to a signal that is sensed when impact is generated on an active zone that corresponds to respective predetermined

signal (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4) (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67); and

means for associating the location of the impact with said active zone when the sensed signal is sufficiently similar to said predetermined signal (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

O'Neill et al. does not disclose acoustical interface, acoustic waves and at least one acoustical sensor.

Colliot teaches acoustical interface, acoustic waves and at least one acoustical sensor (See Fig. 1, item 2, Title).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Colliot into O'Neill et al. system in order to compare the key signals (See Title in Colliot reference).

As to claim 28, O'Neill et al. teaches a display panel as an object (See Fig. 16, item 1600).

As to claim 29, Colliot teaches acoustical sensor (See Fig. 1, item 2).

As to claims 30-31, O'Neill et al. teaches active zones delimited by a physical marking (See fig. 15, items 1510).

As to claim 33, O'Neill et al. teaches a pen (See Fig. 8A, item 60).

As to claim 39, O'Neill et al. teaches a computer (CPU) for locating of an impact on a surface of an object (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67), the computer comprising:

instructions for receiving measurements at least one sensed signal caused by said impact (See 12, item 304);

instructions for localizing said position of said impact on said interface by processing of said at least sensed signal, the processing characterized by a comparison of a sensed signal in the at least one sensed signal with at least one predetermined signal in a plurality of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4) , wherein

each respective predetermined signal in said in said plurality of predetermined signals corresponding to an active zone in said plurality of active zones on said surface (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67); and

each respective predetermined signal in said plurality of predetermined signals represents a signal that is sensed when a reference impact is generated on the active zone in said plurality of active zones that corresponds to the respective predetermined signal, and wherein,

the position of the impact is associated with an active zone in said plurality of active zones by said instructions for localizing when the sensed signal is sufficiently similar to said predetermined signal corresponding to the active zone (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

O'Neill et al. does not disclose acoustical interface, acoustic waves and at least one acoustical sensor.

Colliot teaches acoustical interface, acoustic waves and at least one acoustical sensor (See Fig. 1, item 2, Title).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Colliot into O'Neill et al. system in order to compare the key signals (See Title in Colliot reference).

As to claim 40, Colliot teaches acoustic waves generated in the object forming an acoustic interface by said impact are measured by at least one acoustic sensor that is in electrical communication with said computer (See Fig. 1, items 1-2,13).

As to claim 41, O'Neill et al. teaches a computer (CPU) of identifying a location of an impact on a surface of an object, wherein said surface is delineated into a plurality of active zones (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67), the computer comprising:

instructions for receiving measurements of a sensed signal caused by said impact (See 12, item 304);

instructions for comparing said sensed signal with a library of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4) , each predetermined signal in said library of predetermined signals corresponding to an active zone in said plurality of active zones (See Fig. 15, items HotZone1-HotZone4, Col.10, Lines 47-67); wherein

when a correspondence between said sensed signal and a respective predetermined signal in said plurality of sensed signals is sufficiently similar, said location of said impact is deemed to be in the active zone corresponding to said respective predetermined signal (See Fig. 12, items 306-318 Col. 8, Lines 41-59 and Col. 10, Lines 8-10).

O'Neill et al. does not disclose acoustic waves.

Colliot teaches acoustic waves (See Fig. 1, item 2, Title).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Colliot into O'Neill et al. system in order to compare the key signals (See Title in Colliot reference).

As to claim 42, O'Neill et al. teaches instructions for comparing comprise instructions for intercorrelating said sensed signal with a predetermined signal in said library (RAM) of predetermined signals (See Fig. 12, items 306-318 from Col. 8, Line 10 to Col. 9, Line 4).

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al. as applied to claim 34 above, and further in view of Takahashi et al. (US Patent No. 5,638,093).

As to claim 36, O'Neill et al. does not disclose that sensed signal is normalized prior to comparing.

Takahashi et al. teaches that sensed signal is normalized (See Fig. 3, item 203, Col. 8, Lines 16-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Takahashi et al. into O'Neill et al. system in order to process data stored in RAM (See Col. 8, Lines 19-22 in Takahashi et al. reference).

7. Claims 16,37,44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colliot and O'Neill et al. as applied to claim 34 above, and further in view of More et al. (US Patent No. 5,194,852).

Colliot and O'Neill et al. do not disclose converting said sensed signal to a sensed code representative of said sensed signal and comparing sensed code with a predetermined code.

More et al. teaches converting said sensed signal to a sensed code representative of said sensed signal and comparing sensed code with a predetermined code (See Fig. 5A, items 1,3,21, Col. 20, Lines 19-43).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of More et al. into Colliot and O'Neill et al. system in order to use digital comparison (See Col. 20, Line 30 in More et al. reference).

8. Claims 3,5,27,43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colliot and O'Neill et al. as applied to claim 41 above, and further in view of Takahashi et al.

As to claim 43, Colliot and O'Neill et al. do not disclose that sensed signal is normalized prior to comparing.

Takahashi et al. teaches that sensed signal is normalized (See Fig. 3, item 203, Col. 8, Lines 16-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Takahashi et al. into Colliot and O'Neill et al. system in order to process data stored in RAM (See Col. 8, Lines 19-22 in Takahashi et al. reference).

As to claims 3,5,27 Takahashi et al. teaches at least one acoustic sensor comprises a plurality of acoustic sensors (See Fig. 14, items 21, 23); said at least one sensed signal comprises a plurality of sensed signals, wherein each sensed signal in said plurality of sensed signals is detected by different acoustic sensor in said plurality of acoustic sensors; and said localizing comprises comparing, using a first comparison technique, a first sensed signal in a plurality of sensed signals with one or more the predetermined signals in said plurality of predetermined signals that were measured using the same acoustic sensor that sensed said first sensed signal, wherein said comparing of said first sensed signal is performed independent of all other comparisons of sensed signals (See Fig. 14, items 21, 23, from Col. 1, Line 17 to Col. 2, Line 21).

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al., Colliot as applied to claim 1 above, and further in view of Skerlos (US Patent No. 4,317,227).

O'Neill et al., Colliot do not disclose comparing a phase of a predetermined signal in the plurality of predetermined signals with a phase of a sensed signal.

Skerlos teaches comparing a phase of a predetermined signal in the plurality of predetermined signals with a phase of a sensed signal (See Fig. 1, items 20,22, Col. 4, Lines 64-68).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Skerlos into Colliot and O'Neill et al. system in order to improve noise immunity of the system.

Allowable Subject Matter

10. Claims 14,22-25,38,45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claim 14 the major difference between the teaching of the prior art of record (O'Neill et al. and Colliot) and the instant invention is the surface of the object forming an acoustic interface comprises a plurality of active zones and the localizing comprises performing an a respective intercorrelation between the sensed signal S(t) and each said predetermined signal $R_i(t)$ in said at least one predetermined signals wherein i is a natural integer lying between 1 and n and wherein i designates an active zone in said plurality of active zones, thereby obtaining one or more respective intercorrelation functions Ci(t) determining a potentially activated active zone j corresponding an intercorrelation function Cj(t), in the one or more respective intercorrelation functions Ci(t), wherein the intercorrelation function Cj(t) has a maximum amplitude greater than those of the other intercorrelation

functions Ci(t); determining the distribution D(i) of the amplitude maxima of the intercorrelation functions wherein:

D(i) = Max (Ci(t));

determining the distribution D'(i) of the amplitude maxima of the intercorrelation function C'i(t) between (i) the predetermined signal corresponding to the potentially activated zone, Rj(t) and (ii) each respective predetermined signal Ri(t) wherein

D'(i) = Max(C'i(t));

computing an intercorrelation between D'(i) and D(i); and determining whether the impact was generated on the active zone j as a function of a level of correlation between the distributions D(i) and D'(i) computed by said intercorrelation between D'(i) and D(i).

Relative to claim 22 the major difference between the teaching of the prior art of record (O'Neill et al. and Colliot) and the instant invention is computing a Fourier transform Ri (w) =[Ri (w) * e power j ~i(w) of a predetermined signal in the plurality of predetermined signals that corresponds to an active zone i in said plurality of active zones; computing a Fourier transform S(w)= S(w) • ej ~(,o) of a sensed signal in the at least one sensed signals; wherein said comparison of the sensed signal in the at least one sensed signal with said at least one predetermined signal in the plurality of predetermined signals comprises comparing:

S'(w) to R'i(w)

wherein

S'(w) is the phase component of the Fourier transform of the sensed signal for those frequency bands co in which the amplitude S(w) is greater than a predetermined threshold; and

R'i (w) is the phase component of the Fourier transform of the predetermined signal for those frequency bands co in which the amplitude Ri (w) is greater than a predetermined threshold.

Claims 23-25 are depend on claim 22.

Relative to claims 38,45 the major difference between the teaching of the prior art of record (O'Neill et al. and Colliot) and the instant invention is that sensed code is a 16-bit code wherein

(a) the first eight bits of said 16-bit code are determined by a frequency spectrum of the sensed signal that is subdivided into eight predetermined frequency tranches [fk, fk÷l], wherein k=l..8 and wherein the bit of rank k is equal to 1 when a final energy value given by the spectrum at frequency fk+l is greater than an average energy value of an acoustic wave in the frequency tranches [fk, fk+l] and 0 when a final energy value given by the spectrum at frequency fk+l is not greater than the average energy value of the acoustic wave in the frequency tranches [fk, fk+l]; and wherein (b) the last eight bits of the code are determined from the sensed signal when it is subdivided into nine predetermined temporal tranches [tk, tk+l], wherein k=l ..9 and wherein the bit of rank k+8 is equal to 1 when an average value of a signal power during the period [tk, tk+l] is greater than an average value of the signal power during the period [tk+l, tk+2], k--1..8,

0 when an average value of a signal power during the period [tk, tk+l] is not greater than an average value of the signal power during the period [tk+l, tk+2], k--1..8.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
01.26.07

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